



STATE OF IDAHO  
DIVISION OF  
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

October 18, 1999

Ms. Kathleen Hain, Manager  
Environmental Restoration Program  
U.S. Department of Energy  
Idaho Operations Office  
850 Energy Drive  
Idaho Falls, Idaho 83401-1563

RE: *Draft Final Scope of Work for the Waste Area Group 3, Operable Unit 3-14, Tank Farm Soil and Groundwater Remedial Investigation/Feasibility*

Dear Ms. Hain:

The Idaho Department of Health and Welfare/Division of Environmental Quality (IDHW/DEQ) has completed its review of the above-referenced document, and provides the enclosed comments. IDHW/DEQ received the draft final Scope of Work on October 5, 1999.

If you have any questions regarding these comments, please contact me at (208) 373-0306.

Sincerely,

A handwritten signature in cursive script that reads "Margie English".

Margie English  
WAG 3 Manager  
IDHW/DEQ Technical Services Group

ME/jc

cc: Talley Jenkins, DOE-ID  
Keith Rose, EPA Region X  
Daryl Koch, DEQ-BOI  
File, DEQ-IF

Enclosure

**IDHW/DEQ Technical Review Comments on the Draft Final Scope of Work for the Waste Area Group 3, Operable Unit 3-14, Tank Farm Soil and Groundwater Remedial Investigation/Feasibility Study**

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**General Comments**

- 1) The Scope of Work (SOW) should describe the process to develop the Remedial Investigation (RI) work plan that was discussed among the agencies during the September 22-23, 1999 tri-agency meeting in Idaho Falls. It is our understanding that the agreed-upon process includes the development of up to seven white papers regarding various aspects of the remedial investigation that will be informally reviewed by the agencies before the end of the 1999 calendar year. The RI Work Plan will be developed in part on the basis of consensus reached on these white papers, and in part on a revision of data needs discussion held during the September 1999 tri-agency meeting.
- 2) The finalized Scope of Work (SOW) should explain the revisions made since the draft version, and provide a rationale for the agreed-upon schedule extension. In addition, the text should state that the schedule for enforceable milestones for the upcoming primary deliverables (ie., draft Remedial Investigation/Feasibility Study Report and draft Record of Decision) will be identified in the draft RI Work Plan.
- 3) It is our understanding that an unacceptable risk via the near-surface soil pathway has already been determined for tank farm soils through work conducted pursuant to the OU 3-13 RI/FS. Consequently, it is our understanding that the focus of sampling conducted in the near surface tank farm soils under OU 3-14 would be to support the feasibility study, rather than the traditional "nature and extent" approach which typically supports a risk assessment. However, there are several citations throughout the SOW which suggest otherwise. If there is still a need to determine nature and extent of contamination in tank farm near-surface soils for purposes of risk assessment, the circumstances should be specifically outlined and discussed with the agencies.

**Specific Comments**

- 4) Section 1.2, Page 1-3, Second Complete Paragraph on the Page

For consistency, the text should include all the reasons that were cited on page iv of the OU 3-13 ROD for deferring the final remedial decision for the Tank Farm soils.

- 5) Section 2.3, Page 2-2, Second Bullet

As written, this bulleted text is unclear. The second sentence appears to suggest that the conclusions of the OU 3-13 RI, which identified that surficial soils in the Tank Farm pose an unacceptable risk to groundwater, may be changed as a result of the OU 3-14 tank farm RI. Please clarify the intent of this bullet.

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**6) Section 2-2, Page 2-2, Fifth Bullet**

At this time, it is unclear what investigations of groundwater treatment technologies are necessary.

**7) Section 2.3, Page 2-2, Second Bullet**

The location of Well 55-06 should be identified on a map in the SOW.

**8) Section 2.3, Page 2-3, Last Bullet under Section Heading**

The first sentence in this bullet is unclear. It is assumed that the risks posed by the three sources identified in the comment will be cumulative with respect to the groundwater pathway. If the referenced text is questioning whether or not that risk will be acceptable, it should be so stated.

**9) Section 2.4, Page 2-3, First Bullet under Section Heading**

See general comment # 3. It is our understanding that the OU 3-13 RI/FS established that the near surface tank farm soils present an unacceptable risk which must be remediated. Therefore, it would seem that the decision to be made in OU 3-14 will be alternative selection rather than a risk assessment decision.

**10) Section 2.4, Page 2-4, First Two Bullets on the Page**

It is unclear how a dimension of 20 meters diameter for the residual source terms was estimated. Please present the basis for this estimate.

**11) Section 3, Page 3-1, First Bullet**

On the basis of discussions held during the September 22-23, 1999 tri-agency meeting, it is our understanding that further characterization of site soils to determine nature and extent of contamination that pose a surface pathway risk is largely unnecessary, as the presence of an unacceptable risk has already been determined. Further, it is our understanding that the majority of surface soil sampling at the tank farm would focus on supporting the feasibility study to better develop remedial alternatives for the surface soils or to better refine a source term for the groundwater pathway. Therefore, we suggest that this bullet be re-worded.

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**12) Section 3, Page 3-1, Tank Farm Soils List**

A bullet should be included that states that the on-going  $K_d$  study that is being conducted at Clemson University will be finalized, documented, and distributed to the Agencies for evaluation.

**13) Section 3, Page 3-1, Groundwater List**

- a) One or more bullets should specifically identify the installation of wells in the SRPA and the perched water system as OU 3-14 remedial investigation activities.
- b) **First Bullet:** Hopefully, the cluster wells will also help investigate residual source term located above the water table that results from direct injection of wastes into the vadose zone when the injection well failed. In addition, the cluster wells should be used to evaluate the vertical distribution of contaminants within the SRPA (see third bullet under this heading).
- c) **Second Bullet:** Use of the term "*deep aquifer wells*" is somewhat mis-leading because it suggests that the monitoring will occur beneath the uppermost aquifer, which is not the case. For clarity, we suggest replacing "*deep aquifer wells*" with "*SRPA wells*." In addition, we suggest replacing "*south of*" with "*down gradient from*."
- d) **Fourth Bullet:** We recommend inserting *Evaluate the efficacy of developing* prior to stable and radioactive isotope signatures. . . Without further information regarding suspected source terms, assumed migration pathways, and sampling techniques, we cannot evaluate the usefulness of this proposed technique. It is expected that this level of detail will be presented in the RI Work Plan.

**14) Section 3, Page 3-1, Feasibility Studies List, Second Bullet**

The draft SOW stated that three remedial action technologies would be evaluated via treatability studies which would be planned to take one year to complete. The finalized SOW should identify technologies that are being considered for treatability testing.